
PEDIATRIC CARDIAC ARREST

(1 day to 14 Years of Age)

FIELD ASSESSMENT/TREATMENT INDICATORS

Non-traumatic setting

Consider the potential causes of arrest for age

BLS INTERVENTIONS

1. Assess patient, maintain appropriate airway, begin CPR according to AHA 2005 Guidelines
 - a. Ventilate at rate of 12 to 20 per minute. Ventilatory rate will decrease as patient age increases.
 - b. Ventilatory volumes shall be the minimum necessary to cause chest rise.
2. If patient 1 year of age or older, utilize AED per Protocol Reference #6301 AED

ALS INTERVENTIONS

1. Initiate CPR for 2 minutes if no CPR in progress and response time over 5 minutes.
2. Establish advanced airway with minimal interruption to CPR. After advanced airway established, compressions will be continued at 100 per minute without pauses during ventilations.
 - a. Endotracheal Intubation; Protocol Reference #4011 Oral Endotracheal Intubation - Pediatric
 - b. Needle Cricothyrotomy; Protocol Reference #4030 Needle Cricothyrotomy
3. Determine cardiac rhythm, proceed to appropriate intervention:

Ventricular Fibrillation/Pulseless Ventricular Tachycardia

1. Defibrillate at 2j/kg, do not exceed 200joules (or biphasic equivalent)
2. Perform CPR for 2 minutes
3. Administer Epinephrine, repeat same dose every 5 minutes.
 - a. 1 day to 8 years: 0.01mg/kg, (do not exceed adult dosage)
 - b. 9 to 14 years: 1.0mg
 - c. ET (1:1000) 0.1mg/kg (do not exceed adult dosage)
4. Reassess rhythm – If VF/VT persists defibrillate at 4j/kg, do not exceed 300 joules (or biphasic equivalent)
5. Perform CPR for 2 minutes
6. Reassess rhythm – If VF/VT persists for 3rd and subsequent shocks defibrillate at 4j/kg, do not exceed 360 joules (or biphasic equivalent)
7. Perform CPR for 2 minutes
8. Consider Lidocaine, may repeat at 0.5mg/kg after 5 minutes up to total of 3mg/kg
 - a. 1 day to 8 years: 1mg/kg IO/IV/ET
 - b. 9 to 14 years: 1mg/kg IV/IO. 2mg/kg ET
9. Reassess rhythm

Pulseless Electrical Activity/Asystole

1. Assess for reversible causes and initiate treatment
2. Continue CPR with evaluation of rhythm every 2 minutes

3. Administer Epinephrine, repeat same dose every 5 minutes to a maximum dose of 3.0mg IV/IO (1:10,000)
 - a. Birth to 8 years: 0.01mg/kg, (do not exceed adult dosage)
 - b. 9 to 14 years: 1.0mg
 - c. ET (1:1000) 0.1mg/kg (do not exceed adult dosage)
4. For patients 9 to 14 years Atropine 1.0mg may be given every 3 minutes, to maximum of 3mg.
5. Consider termination of efforts if patient remains in asystole or PEA after successful intubation and initial medications without a reversible cause identified.

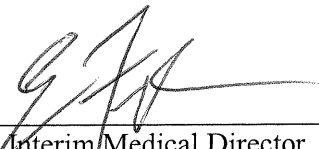
Utilize the following treatment modalities while managing the pediatric cardiac arrest patient

- Vascular access
 - 1 day to 8 years: IO preferred per Protocol Reference #4026 Intraosseous Infusion
 - 9 to 14 years: IV/IOIf unable to obtain vascular access, medications may be administered via ET per protocol Reference #4013 Tracheal Instillation of Medications.
May initiate second IV/IO if indicated
- Administer fluid bolus, may repeat twice for continued signs of inadequate tissue perfusion
 - 1 day to 8 years: 20ml/kg NS and evaluate
 - 9 to 14 years: 300ml NS and evaluateIn RCF may give 2 additional fluid boluses if indicated
- Obtain blood glucose, if indicated administer Dextrose according to Protocol Reference #7007 Pediatric Altered Level of Consciousness
- Insert Naso/Orogastric tube per Protocol Reference #4021 Insertion of Nasogastric/Orogastric Tube
- Naloxone for suspected opiate overdose, may repeat once as clinically indicated
 - 1 day to 8 years: 0.1 mg/kg IO/IV. Do not exceed adult dosage.
 - 9 to 14 years: 2mg IV/IO

NOTE

1. For continued signs of inadequate tissue perfusion **after** successful resuscitation
 - 1 day to 8 years: Epinephrine (1:10,000) 0.005mg/kg IO/IV every ten minutes.
 - 9 to 14 years: Dopamine 400mg in 250ml of NS to infuse at 5-20 mcg/kg/min IV titrated to maintain signs of adequate tissue perfusion
2. Base hospital physician may order additional medications or interventions as indicated by patient condition.
3. Base hospital contact is required to terminate resuscitative measures. A copy of the EKG should be attached to the PCR for documentation purposes.

APPROVED

 8/28/16

ICEMA Interim Medical Director Date

 8/28/16

ICEMA Executive Director Date